

BACTERIAL DISEASE SCREENING OF CULTURED HORSE MACKEREL (*TRACHURUS MEDITERRANEUS*) IN SEA- CAGES IN SOUTHERN BLACK SEA REGION OF TURKEY

EROL CAPKIN, ERTUGRUL TERZI, HALIS BORAN, ILHAN ALTINOK,
NADIR BAŞÇINAR

*Karadeniz Technical University, Faculty of Marine Science, Department of Fisheries
Technology Engineering, 61530 Sürmene, Trabzon, Turkey*

PRIKAZ BAKTERIJSKIH BOLESTI MEDITERANSKOG ŠNJURA (*TRACHURUS MEDITERRANEUS*) GAJENOG U MORSKIM KAVEZIMA U JUŽNOM CRNOMORSKOM REGIONU TURSKE

Apstrakt

Cilj ovog rada je da prikaže bakterijske bolesti šnjura gajenog u morskom ribnjaku u Južnoj crnomorskoj regiji Turske. Bakterijska flora riba ispitivana je jednom mesečno a uzorci su prikupljeni od šnjura gajenog u morskim kavezima od novembra 2011 do oktobra 2013. U toku istraživanja nije utvrđeno prisustvo parazita, dok je iz uzoraka iz gajenih riba izolovano nekoliko vrsta Gram-negativnih vrsta bakterija, uključujući *Aeromonas hydrophila*, *Chryseobacterium indologenes*, *Vibrio vulnificus*, *Bulkhoderia cepacia*, *Photobacterium damsela damsela* i *Vibrio alginolyticus*. Pedeset procenata ili više bakterija bile su otporne na streptomycin, sulfametoksazol, gentamicin, cefalotin i ampicilin. Kao najefikasniji antibiotici pokazali su se florfenikol i hloramfenikol. Najčešće utvrđeni geni rezistencije bili su beta-laktamski (blaTEM-OT3-4) i tetraciklinski (tetB).

Ključne riječi: šnjur, bakterijske bolesti, geni rezistencije na antibiotike, morski kavez

Abstract

This study aimed to screen bacterial disease in cultured horse mackerel in the marine fish farm of the Southern Black Sea Region of Turkey. Fish bacteria were surveyed monthly and collected in November 2011 to October 2013 from cultured horse mackerel in the sea-cages. During the study, no parasite was found while several Gram negative

bacterial species including *Aeromonas hydrophila*, *Chryseobacterium indologenes*, *Vibrio vulnificus*, *Bulkholderia cepacia*, *Photobacterium damsela damsela* and *Vibrio alginolyticus* were isolated from cultured fish. Fifty percent or more of the bacteria were resistant to streptomycin, sulfamethoxazole, gentamycin, cephalothin, and ampicillin. The most effective antibiotics were florefenicol and chloramphenicol. The most prevalent resistance genes were found to be beta-lactam (blaTEM-OT3-4) and Tetracycline (tetB).

Keywords: Horse mackerel, bacterial disease, antibiotic resistance gene, sea-cage